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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/611,369	06/30/2003	Gary C. Foss	BOEI-1-1186	3155
46020	7590	12/15/2004	EXAMINER	
BLACK LOWE & GRAHAM PLLC 701 FIFTH AVENUE, SUITE 4800 SEATTLE, WA 98104			MACK, COREY D	
			ART UNIT	PAPER NUMBER
			2855	

DATE MAILED: 12/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/611,369

Applicant(s)

FOSS ET AL.

Examiner

Corey D. Mack

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-74 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 39 is/are allowed.
- 6) ☒ Claim(s) 1-7, 21-26, 34-38 and 53-74 is/are rejected.
- 7) ☒ Claim(s) 8-20, 27-33 and 40-52 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 December 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 12/22/03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the second and third telemetry modules must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

2. Claim 36 is objected to because of the following informalities: The claim recites “the density sensor”. However, there is no antecedent basis for this limitation. Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 5, 6, 34-37, 53, 55, 56, 58, 59, 61-63, 65, 67, 68 and 70-72 are rejected under 35 U.S.C. 102(b) as being anticipated by Nishi, et al. (US 6,467,358).

A. With respect to Claims 1, 5, 53 and 65, Nishi, et al. discloses an apparatus and method for measuring an amount of oil in a flow of fluid comprising: a housing 1 having an interior passage configured to have a flow of fluid 2 pass therethrough, the housing having a receiving end coupled with an output of a source of the flow of fluid and an output end coupled with a fluid destination (See Fig. 1, 4 and 5); a magnetic source 41, 46 disposed inside the interior passage, the magnetic source being positioned such that a magnetic field producible by the magnetic source is configured to induce an electric current in a conductive portion of the flow of fluid as the flow of fluid passes from the receiving end of the housing to the output end of the housing; a detector 42 disposed inside the interior passage between the magnetic source and the output end of the housing, the detector being configured to respond to the electric current induced in the conductive portion of the flow of fluid and generate a first signal representative of an amount of

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oil in the flow of fluid (column 7, lines 42-65); and, an analog-to-digital converting circuit to convert the first signal into a first digital signal (inherent).

B. With respect to Claims 6 and 54, Nishi, et al. discloses a computing module 45 configured to receive the first digital signal and compute a relative amount of oil in the flow of fluid, the computing module being further configured to generate a second signal representative of the relative amount of oil (column 6, lines 42-65).

C. With respect to Claims 55 and 56, Nishi, et al. discloses measuring a rate of flow of fluid through the housing calculating the total flow rate of oil in the flow fluid by combining the rate of flow of fluid with the relative (ratio) amount of oil in the flow (column 6, lines 40 – column 6, line 41).

D. With respect to Claims 34, 37, 58, 59, 61, 63, 67, 68, 70 and 72, Nishi, et al. discloses measuring at least one additional fluid property (pressure 10, temperature 11) of the flow of fluid passing through the housing and adjusting the total flow rate of oil in the flow of fluid by combining the total flow rate of oil in the flow of fluid with the additional property of the flow of fluid (column 6, lines 11-16).

E. With respect to Claims 35, 36, 62 and 71, Nishi, et al. discloses that the at least one additional property includes nuclear fluid density (column 7, lines 12-17).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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6. Claim 2-4 and 22-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nishi, et al. (US 6,467,358) in view of Butler (US 6,234,030).

A. With respect to Claims 22, Nishi, et al. disclose the claimed invention, except they do not explicitly disclose a communication interface. Butler discloses a signal communication interface in order to transmit test data to a remote computer (column 13, line 1-18; See Fig. 7). Therefore, at the time the invention was made, it would have been obvious to one of ordinary skill in the art to include in Nishi, et al. a communication interface to transmit test data.

B. With respect to Claims 2 and 23, Butler discloses that the housing (meter) includes a first end coupled with an outlet of a source of the flow of fluid and a second end (See Fig. 7).

C. With respect to Claims 3 and 24, Butler discloses that the first and second ends of the housing include flanges that are coupleable with flanged pipe sections (See Fig. 7).

D. With respect to Claims 4 and 25, Nishi, et al., in view of Butler, discloses the claimed invention, except they do not explicitly disclose steel, iron, copper, or clear PVC pipe. However, it is notoriously well-known in the art of flow metering to construct a meter housing of steel, iron, copper, opaque PVC, translucent PVC, or clear PVC pipe to suit the particular use. (See MPEP §2144.03). Therefore, at the time the invention was made, it would have been obvious to one of ordinary skill in the art to include in Nishi, et al., as modified by Butler, various pipe materials to suit the particular use of the meter.

7. Claims 7, 21, 26, 38, 54, 57, 60, 64, 66, 69, 73 and 74 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nishi, et al. (US 6,467,358) in view of Butler (US 6,234,030) as applied to claims 2-4 and 22-25 above, and further in view of Guerreri (US 5,706,273).

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A. With respect to Claims 7 and 26, Nishi, et al., in view of Butler, discloses the claimed invention, except they do not disclose an RS-232 interface. Guerreri discloses a fluid flow comprising a control module 134 connected to an RS-232 interface in order to transmit test data (column 17, lines 44-60). Therefore, at the time the invention was made, it would have been obvious to one of ordinary skill in the art to include in Nishi, et al., as modified by Butler, an RS-232 interface to allow data transmission.

B. With respect to Claims 54, 57, 60, 66, 69 and 73, Butler discloses communicating the signal to a data collection device (computer) (column 13, lines 1-18; See Fig. 7).

C. With respect to Claims 21, 38, 64 and 74, Butler discloses various methods of separating gas (separator 10) from the flow of fluid before directing the flow of fluid from the source of fluid through the housing (See Fig. 3a-7).

Allowable Subject Matter

8. Claim 39 is allowed.

9. Claims 8-20, 27-33, 40-52 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Corey D. Mack whose telephone number is (571) 272-2181. The examiner can normally be reached on M-F, 8:30-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Lefkowitz can be reached on (571) 272-2180. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.


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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Corey D. Mack, Esq.
Patent Examiner
Art Unit 2855

December 13, 2004



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